

AMENDMENTS TO THE CLAIMS:

Claim Listing

1. (Currently Amended) A thin film device comprising: a metal sulfide layer selected from the group consisting of manganese sulfide (MnS), magnesium sulfide (MgS), and calcium sulfide (CaS), which is formed on a single crystal silicon substrate by epitaxial growth; and a ~~compound~~ thin film comprising an ~~with~~ ionic bonding compound, which is formed on the metal sulfide layer by epitaxial growth.

Claims 2-77 (Cancelled)

78. (Currently Amended) ~~The thin film device as claimed in claim 1, wherein said thin film comprises at least one selected from the group consisting of a metal nitride thin film, a metal oxide thin film, and a metal sulfide thin film~~ A thin film device comprising: a metal sulfide layer selected from the group consisting of manganese sulfide (MnS), magnesium sulfide (MgS), and calcium sulfide (CaS), which is formed on a single crystal silicon substrate; and a thin film comprising an ionic compound, which is formed on the metal sulfide layer,

wherein said metal sulfide layer is sandwiched between said single crystal silicon substrate and said thin film, comprising an ionic compound, and wherein said thin film comprising said ionic compound is selected from the group consisting of a metal nitride thin film and a metal oxide thin film.

79. (Currently Amended) ~~The thin film device as claimed in claim 1, A thin film device comprising: a metal sulfide layer selected from the group consisting of manganese sulfide (MnS), magnesium sulfide (MgS), and calcium sulfide (CaS), which is formed on a single crystal silicon substrate; and a thin film comprising an ionic compound, which is formed on the metal sulfide layer; and further comprising another layer comprising a platinum group metal layer formed between said metal sulfide layer and said thin film comprising said ionic compound.~~

80. (Previously Presented) The thin film device as claimed in claim 79, wherein said thin film comprises at least one selected from the group consisting of a metal nitride thin film, a metal oxide thin film, and a metal sulfide thin film.

81. (Previously Presented) The thin film device as claimed in claim 79, wherein a metal of said platinum group metal is selected from the group consisting of rhodium, iridium, palladium and platinum or an alloy thereof, and wherein said platinum metal layer is in the form of a single layer or a multi-layer.

82. (Previously Presented) The thin film device as claimed in claim 81, wherein said ionic compound thin film is selected from the group consisting of a metal nitride thin film, a metal oxide thin film, and a metal sulfide thin film.

83. (Currently Amended) The thin film device as claimed in claim 1, A thin film device comprising: a metal sulfide layer selected from the group consisting of manganese sulfide (MnS), magnesium sulfide (MgS), and calcium sulfide (CaS), which is formed on a single crystal silicon substrate; and a thin film comprising an ionic compound, which is formed on the metal sulfide layer, wherein said single crystal silicon is a single crystal silicon (100), and said ionic compound thin film is an aluminum nitride (AlN) having a (1120) surface as its top surface.

84. (Previously Presented) The thin film device as claimed in claim 83, further comprising an ionic compound having a (1120) thin film, which has a (1120) surface formed by epitaxial growth as its top surface, and is formed on said aluminum nitride (AlN) layer having the (1120) surface as its top surface, or via another intermediate layer.

85. (Previously Presented) The thin film device as claimed in claim 84, wherein said compound thin film comprises a gallium nitride (GaN) thin film having a (1120) surface as its top surface.

86. (Canceled)

87. (Canceled)

88. (Canceled)

89. (Canceled)

90. (Canceled)

91. (Canceled)

92. (Canceled)

93. (Canceled)

94. (Canceled)